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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/520,255

08/22/2005

Hideyo Kikuchi

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EXAMINER

KASHNIKOW, ERIK

ART UNIT

PAPER NUMBER

1794

NOTIFICATION DATE

DELIVERY MODE

05/22/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/520,255	<b>Applicant(s)</b> KIKUCHI, HIDEYO	
	<b>Examiner</b> ERIK KASHNIKOW	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 16 March 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7 and 12-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/16/09</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically the claims are rejected because it is not clear what is being claimed specifically what content is being claimed. The phrase "in the conductive layer of constitutes" adds to the confusion. In order to further prosecute the claims Examiner will treat the claims as stating "wherein a content of the conductive composition in the conductive layer of a metal conductive filler constitutes" in place of "wherein a content of the conductive composition in the conductive layer of constitutes".

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swartz et al. (US 5,993,593) in view of Katayama et al. (US 6,044,628).

Art Unit: 1794

5. In regards to claim 7 Swartz et al. teach a multilayer sheet (column 9 lines 42-45) comprising an outermost layer of thermoplastic resin (column 9 lines 20-23) wherein a metal containing ink is printed on specific areas where a seal is to be formed by induction heating (column 7 lines 35-50). Swartz et al. further teach that imprint a design directly on the device, while it is silent regarding the imprinting being on the outer surface, one of ordinary skill in the art at the time of the invention would realize that putting the imprint on the outer surface would make it easier for someone to see marketing on the package or information as to what is contained in said package.

6. In regards to claims 16 and 17 absent a showing of criticality with respect to "concentration of metal filler in the ink" (a result effective variable), it would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the "concentration of the metal filler in the ink" through routine experimentation to values, including those presently claimed in order to achieve "an ink with appropriate conductive properties that can seal the polymer layers effectively". It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

7. As stated above Swartz et al. teach packages formed by induction heating wherein ink is printed only on the areas that need sealing, however they are silent with regards to webs being formed, delivering web formed layers successively as well as forming a longer web support layer.

8. In regards to claims 7 Katayama et al. teach a process for forming food packages (column 1 lines 7-14). Katayama et al. teach a method for forming webs wherein a

Art Unit: 1794

plurality of support layer is wound around a roll (column 5 lines 14-18) which is then fed through an apparatus wherein identical sections of the web like material are sealed off (column 5 lines 28-37) (an obvious variant of sealing the lead end of the second roll to the tail end of the first roll). Katayama et al. teach that the seals at the ends may be formed by induction heating involving a metal foil layer at specific zones (column 6 lines 24-36). Katayama et al. teach that the web like material may comprise a variety of layers which may act as a support layer and an inner polyolefin layer (column 1 lines 45-50).

9. One of ordinary skill in the art at the time of the invention would be motivated to modify the invention of Swartz et al. with that of Katayama et al. because the invention of Katayama et al. would offer a reduced amount of and possible elimination of defects in the film, and as an extension of that the final products (column 2 lines 58-63).

10. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swartz et al. (US 5,993,593) in view of Katayama et al. (US 6,044,628) and Ehrreich (US 4,683,082).

11. As stated above Swartz et al. teach packages formed by induction heating wherein ink is printed only on the areas that need sealing, however they are silent with regards to the type of metal in the ink as well as the form of the metal.

12. In regards to claims 13-15 Ehrreich teaches conductive inks which comprise silver flakes (claim 8 and column 8 lines 54-60).

Art Unit: 1794

13. One of ordinary skill in the art at the time of the invention would be motivated to modify the invention of Swartz et al. and Katayama et al. with that of Ehrreich et al. because the invention of Ehrreich et al. offers the ability to be stored for a long period of time without decay of the conductive ink, specifically increases in resistivity (column 2 lines 20-25).

14. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swartz et al. (US 5,993,593) in view of Katayama et al. (US 6,044,628) and Xiao (US 6,322,620).

15. As stated above Swartz et al. teach packages formed by induction heating wherein ink is printed only on the areas that need sealing, however they are silent with regards to the type of metal in the ink.

16. In regards to claims 12 and 13 Xiao teaches that the metals found in conductive inks are often silver coated aluminum (claim 4).

17. One of ordinary skill in the art at the time of the invention would be motivated to modify the invention of Swartz et al. and Katayama et al. with that of Xiao because the invention of Xiao offers advantageous shelf life and curing and drying time and temperatures (column 2 lines 10-17).

***Response to Arguments***

18. Applicant's arguments, see arguments, filed 03/16/09, with respect to the objection of the abstract have been fully considered and are persuasive. The objection of the abstract has been withdrawn.

19. In regards to the double patenting rejection, as claim 9 was the only claim being rejected under obvious type double patenting and is currently canceled the double patenting rejection has been withdrawn.

20. Applicant's arguments with respect to claim 7 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1794

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIK KASHNIKOW whose telephone number is (571)270-3475. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (Second Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erik Kashnikow  
Examiner  
Art Unit 1794

/Rena L. Dye/  
Supervisory Patent Examiner, Art Unit 1794



Application/Control Number: 10/520,255  
Art Unit: 1794

Page 8